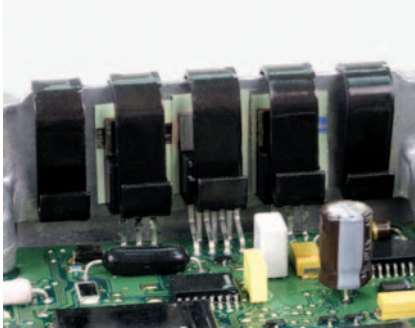


Electrically Insulating, Thermally Conductive Elastomeric Material

Features and Benefits

- Thermal impedance: 0.42°C-in²/W (@50 psi)
- Elastomeric compound coated on both sides



Bergquist Sil-Pad AI500 is a silicone-based, thermally conductive and electrically insulating material. It consists of a cured silicone elastomeric compound coated on both sides of a fiberglass reinforcement layer.

Sil-Pad AI500 performs well under clamping pressure up to 200 psi and is an excellent choice for high performance applications requiring electrical isolation and cut-through resistance.

TYPICAL PROPERTIES OF SIL-PAD AI500						
PROPERTY	IMPERIAL VALUE	METRIC VALUE	TEST METHOD			
Color	Green	Green	Visual			
Reinforcement Carrier	Fiberglass	Fiberglass	—			
Thickness (inch) / (mm)	0.010	0.254	ASTM D374			
Hardness (Shore A)	80	80	ASTM D2240			
Breaking Strength (lbs/inch) / (kN/m)	65	12	ASTM D1458			
Elongation (% - 45° to Warp and Fill)	40	40	ASTM D412			
Continuous Use Temp (°F) / (°C)	-76 to 356	-60 to 180	—			
ELECTRICAL						
Dielectric Breakdown Voltage (Vac)	6000	6000	ASTM D149			
Dielectric Constant (1000 Hz)	7.0	7.0	ASTM D150			
Volume Resistivity (Ohm-meter)	10 ¹¹	10 ¹¹	ASTM D257			
Flame Rating	V-O	V-O	U.L. 94			
THERMAL						
Thermal Conductivity (W/m-K)	2.0	2.0	ASTM D5470			
THERMAL PERFORMANCE vs PRESSURE						
	Pressure (psi)	10	25	50	100	200
TO-220 Thermal Performance (°C/W)		3.03	2.62	2.21	1.92	1.78
Thermal Impedance (°C-in ² /W) (1)		0.59	0.50	0.42	0.34	0.31

1) The ASTM D5470 test fixture was used. The recorded value includes interfacial thermal resistance. These values are provided for reference only. Actual application performance is directly related to the surface roughness, flatness and pressure applied.

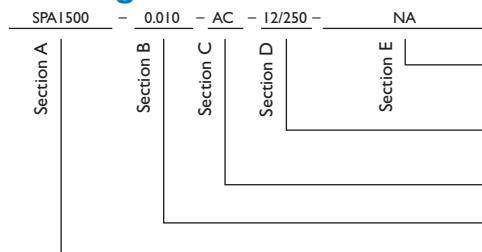
Typical Applications Include:

- Power supplies
- Automotive electronics
- Motor controls
- Power semiconductors

Configurations Available:

- Sheet form, die-cut parts, and roll form
- With or without pressure sensitive adhesive

Building a Part Number



Standard Options

NA = Selected standard option. If not selecting a standard option, insert company name, drawing number, and revision level.

12/250 = Standard configuration dash number, 12/12 = 12" x 12" sheets, 12/250 = 12" x 250" rolls, or 00 = custom configuration

AC = Adhesive, one side
00 = No adhesive

Standard thicknesses available: 0.010"

SPA1500 = Sil-Pad AI500 Material

Note: To build a part number, visit our website at www.bergquistcompany.com.

Sil-Pad®: U.S. Patents 4,574,879; 4,602,125; 4,602,678; 4,685,987; 4,842,911 and others